MINUTES OF SECOND RESTORATION ADVISORY BOARD (RAB) MEETING OF 15 JANUARY 1997

The following individuals were in attendance:

CDR Robert Filler (NASJRB)
(Co-Chairperson) (Executive Officer)
(215) 443-6051

LCDR Mark Leemaster (NASJRB)
Public Works Officer
(215) 443-6221

Mr. Jim Edmond (NASJRB)
(215) 443-6939

Mr. Carl Reitenbach (EA Engineering)
(410) 771-4950

Drew Marcotte (NASJRB)
Public Affairs Officer
(215) 443-1776

Mr. Chuck Holick (EA Engineering)
(410) 771-4950

Mr. Jim Colter (Northern Division)
(610) 595-0567 (X-163)

Mr.Bill Hudson (US-EPA)
(215) 553-2509

Mr. Eric White (Public Spirit/
Montgomery Newspapers)
(215) 542-0200

Mr. Tom Friedman
(Horsham Square Pharmacy)

Col. Richard Moss (913 AW/CC)
Commander Air Force Reserve
(215) 443-1100

Mr. Paul Greco (NASJRB)
(215) 443-6937

Mr. Russ Turner (Brown & Root)
(610) 971-0900

Mr. Hal Dusen (913 SPTG/CEV)
(215) 443-1108

Mr. Charanjit Gill (913 SPTG/CEV)
(215) 443-1105

Capt Richard Frattarelli (111 FW/EM)
(215) 443-1433

Mr. Jack Dunleavy (Northern Division)
(610) 595-0567 (X-152)

Mr. David Kennedy (PADEP)
(610) 832-6199

Mr. Kevin Kilmartin (Brown & Root)
(610) 971-0900

Mr. John Lubows (Community)

Mr. Bill Natter (Community)

Mr. Bob Lowandowski (NAVFAC)

Ms. Liz Gemmell (Community)

Ms. Barbara Curtis (Community)

Mr. Dan Goode (Community)

Mr. Eric Lindhult (Community)

Mr. John Dagostino (Community)

Mr. Ray Leopold (Community)

Mr. Thomas Hibbs (Community)

Mr. Richard Peffall (Community)

Mr. Jim Vetrini (Community)

Mr. Dan McCaffrey
(Horsham Chamber of Commerce)

HIGHLIGHTS OF RESTORATION ADVISORY BOARD (RAB) MEETING

Mr. Edmond, Environmental Coordinator at NASJRB Willow Grove, opened the meeting by welcoming everyone and having all RAB members re-introduce themselves.

Mr. Edmond then went over the Agenda for the evenings meeting.

The first agenda topic was the update on the Air Forces remediadation efforts at their Petroleum, Oils, and Lubricants (POL) sites. Mr. Charanjit Gill (913 SPTG/CEV) gave an overview of the progress that the Air Force and their contractor have made in the last 3 months (see enclosure 1). The site is the result of undocumented and documented JP-4 spills from the POL area, site 1, in 1979. The POL area now has secondary containment which will prevent any future contamination. During 1992, free floating JP-4 was found in the soil and in surface water. In June 1993 a Soil Vapor Extraction system, consisting of eight extraction wells, was installed and is being operated on a periodic basis. In July 1994, six of the eight wells showed samples of free JP-4, October 1995 showed only one well with samples of free JP-4. Based on this data it is noted that the plume of contamination is receding. The Air Force contractor has conducted a reassessment of the site through additional soil sampling as well as sampling from the 25 monitoring wells during the Fall of 1996. Resulting in design modifications to the Soil Vapor Extraction system. The Air Force is also attempting to characterize the source of the contamination at the washrack area, site SD-04. They expect that the final report on both of these sites will be completed by May 1997.

The second agenda topic was the RAB members response to the draft Phase II Remedial Investigation (RI) Work Plan. Mr. Jim Colter, the Remedial Program Manager (NAVFAC Northern Division) stated that he was pleased with the 2 responses that he received from the RAB members. He gave the RAB a copy of the comments and the Navy's response to those comments (enclosure #3). He said that all the comments, where applicable, will be included into the final Phase II RI Work Plan. He went on to say that he was waiting for the Environmental Protection Agency (EPA) and Pennsylvania Department of Environmental Protection (PADEP) final review, so they could be incorporated into the final RI Work Plan, and that the field work could start in spring.

The next topic on the agenda was the results of the offsite residential well testing and what was the next step. Mr. Jim Colter stated that the results of the sampling showed that 4 of the 5 residences tested showed no detectable levels of contamination. The fifth residence had showed detections of 2 pollutants but they were within PADEP's drinking water quality standards. The owner of the residence that had the detections, commented that he wanted to be reassured that the water quality of his well would not harm the health of his 2 small children. Mr. Edmond gave the owner of the residence the names and phone numbers of points of contact at both the Montgomery County

Health Department and the local office of the Agency of Toxic Substances and Disease Registry (ATSDR). Mr. Edmond also asked the owner of the residence if he would be interested in becoming a member of the RAB, so as to be kept up to date with all environmental actions on the air station. Mr. Natter agreed, filled out a membership form and was made a member of the RAB. Mr. McCaffery (RAB member) asked how deep the wells tested were? Mr. Dunleavy and Mr. Edmond stated they were not sure of the exact depth but Mr. Natter stated his well was 90 feet deep. Mr. McCaffery then stated that these tests still did not address the shallow wells on the "avenues". Mr. Dunleavy stated that although the Navy did not test the shallow wells on the "avenues", the wells tested were along the perimeter of the air station and would be representative of any contamination migrating from the air station. Mr. Colter wrapped up the conversation on this topic by saying that the Phase II RI would be looking for these types of contaminants and if any were found, the Navy would expand testing as needed to localize the contamination.

The next topic was the status of the Community Relations Plan. Mr. Colter stated that he had received comments from the Navy and was waiting for comments from the Air Force/Air Guard. The RAB members/EPA/PADEP would receive a copy in a few weeks after the Navy/Air Force/Air Guard comments were incorporated.

The last topic discussed before the break was the ground rules for RAB member attendance. It was decided that any RAB member not able to attend scheduled meeting needed to call either another member of the RAB or Mr. Jim Edmond to inform them that they would not be able to attend. It was further decided that 2 unreported consecutive absences for scheduled RAB meetings was grounds for their removal from the RAB.

The meeting was adjourned for a break.

The first topic after the break was the results of the Navy Fuel Farm Pilot Study. Mr. Edmond introduced Mr. Carl Reitenbach (project manager) of EA Engineering, Science and Technology, who are the consultants for the environmental work being done at NASJRB Willow Grove fuel farm (enclosure 2). Mr. Reitenbach summarized the results of the test as follows:
The object of the remedial pilot study was to evaluate the effectiveness of the available technologies, described below, in reducing the source hydrocarbons at the navy fuel farm. The Navy is attempting to move the fuel farm site from the Installation Restorations program to the Pennsylvania Land Recycling Program. This action is still pending. To this date the pilot study has recovered 1513.09 gallons of phase liquid product and 400.83 equivalent gallons of product recovered as vapor phase.

The Light Non-Aqueous Phase Liquid (LNAPL) pilot system included the following technologies:

* Applying vacuum to recovery well so as to increase the pressure gradient towards the recovery well. This is to increase LNAPL recovery rate. This also limits smearing of LNAPL in the dewatering zone.

* Automated skimmers were installed at wells 6 & 19 and passive skimmers at wells 14 & 16. The automated skimmers skim LNAPL continuously and the passive skimmers have a fixed storage capacity.

* Soil vapor extraction (SVE) was used at wells 4, 7, & 16. The SVE technology differs from the above technologies by recovering vapor and sorbed-phased hydrocarbons rather than the separated-phase hydrocarbons.

Summary

During periods of high ground water table, LNAPL is present sporadically in a few wells. But during periods of low or falling ground water table elevations LNAPL is found throughout the entire fuel farm area (thought to be 4.6 acres). LNAPL recovery without vacuum enhancement was successful when the ground water table was depressed. The vacuum enhanced LNAPL recovery was hampered by fluctuations in the water table but worked well during dropping ground water table elevations. This method also aided in the in-situ bioremediation by adding oxygen to stimulate biological degradation.

SVE appears to have limited success as a remedial option but as in the vacuum-enhanced LNAPL recovery methods, it stimulated biodegradation of the residual phase petroleum.

Conclusions

Recovery of the LNAPL is limited by hydrogeogy of the site and by ground water table elevations. EA. Assoc. has suggested the following options for the remediation of the fuel farm on a full scale.

* vacuum-enhanced recovery using water table depression operating year round.
* LNAPL recovery using water table depression without vacuum-enhancement, operating only during periods of low ground water table elevations.
* LNAPL recovery using vacuum enhancement recovery when conditions are favorable and only ground water table depression when vacuum-enhancement recovery in not favorable.
*bio-slurping (This technology is basically putting a straw into a glass and sucking out the liquid. The advantage to this is it minimizes the amount of ground water which must be filtered before it can be returned to the environment.)

Recommendations

Base on results from pilot study to date, operating a LNAPL recovery system using ground water table depression and vacuum-enhancement is recommended. The final decision will be made by the Technical Review Committee, made up of air station personnel, Northern Division, EPA, and PADEP.

The next topic addressed was the status of the Federal Facilities Agreement negotiations. Mr. Colter stated that the negotiations regarding model language, are being conducted between Department of Defense and EPA senior management personnel. These negotiations are will directly effect the NAS JRB Willow Grove and ARS Willow Grove agreements with the regulators. He went on to say that after the model language has been agreed upon, that the EPA and Navy project managers will start to discuss site specific issues.

The final agenda topic was a date for the next RAB meeting. It was decided that the next RAB meeting will be held 9 April 1997 from 6:00 to 8:00 PM at the Willow Grove Air Station in the Air Force Commander's Room. It was also decided that a site tour would be given to those RAB members who were interested. The site tour will be conducted prior to the RAB meeting at 5:00 P.M. on the evening of 9 April 1997.